

# PATENT COOPERATION TREATY

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From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
LEANDRO ARECHEDERRA  
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## PCT

### WRITTEN OPINION

(PCT Rule 66)

Date of Mailing  
(day/month/year) **29 OCT 2004**

REPLY DUE

within 2 months/days from  
the above date of mailing

Applicant's or agent's file reference

2003B133A

International application No.

PCT/US03/40340

International filing date (day/month/year)

19 December 2003 (19.12.2003)

Priority date (day/month/year)

20 December 2002 (20.12.2002)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): C08F 2/06, 4/44, 4/64, 4/68 and US Cl.: 526/90, 98, 124.3, 125.7, 144, 185, 206, 226, 169.2, 166

Applicant

EXXONMOBIL CHEMICAL PATENTS INC.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

**When?** See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.  
For an informal communication with the examiner, see Rule 66.6

**If no reply is filed**, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 20 April 2005 (20.04.2005).

Name and mailing address of the IPEA/US

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ACKNOWLEDGED  
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NOV 05 2004

NOV 04 2004

Form PCT/IPEA/408 (cover sheet)(July 1998)

☒ FYI  
☐ Reminder  
☐ File

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# WRITTEN OPINION

International Application No.

PCT/US03/40340

## I. Basis of the opinion

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☒ the description:  
 pages 1-96, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
 pages 97-111, as originally filed  
 pages NONE, as amended (together with any statement) under Article 19  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
 pages 1-3, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages NONE, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

### 5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

**WRITTEN OPINION**

International application No.  
PCT/US03/40340

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. STATEMENT**

Novelty (N)	Claims <u>22-25,28-32 and 34</u>	YES
	Claims <u>1-21,26,27,33 and 35-58</u>	NO
Inventive Step (IS)	Claims <u>22-25,28-32 and 34</u>	YES
	Claims <u>1-21,26,27,33 and 35-58</u>	NO
Industrial Applicability (IA)	Claims <u>1-58</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

The following references cited on the ISR are discussed:

D1: Halasa (US 4,248,988)

D2: Clough et al. (US 5,780,565)

D3: Falchi et al. (US 5,728,783)

Claims 1-6, 8-11, 20, 21, 26, 27, 33, 35-46, 48-50 and 52-58 lack novelty under PCT Article 33(2) as being anticipated by D1. The reference discloses olefin polymerization in the presence of an HFC diluent and a Lewis acid compound (see col. 1, line 54 through col. 2, line 37, col. 5, lines 18-19 and Examples I, III, and IV(d)).

Claims 1-17, 19-21, 26, 27, 33, and 35-58 lack novelty under PCT Article 33(2) as being anticipated by D2. The reference discloses olefin polymerization in the presence of an HFC diluent and a Lewis acid compound (see col. 4, line 2 through col. 9, line 59, col. 13, lines 1-26).

Claims 1-6, 8-10, 14-21, 26, 27, 33, 35-37, 42-46 and 48-57 lack novelty under PCT Article 33(2) as being anticipated by D3. The reference discloses olefin polymerization in the presence of an HFC diluent and a Lewis acid compound (see col. 4-7).

Claims 22-25, 28-32 and 34 the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the embodiments of these dependent claims.

Claims 1-58 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

----- NEW CITATIONS -----

WRITTEN OPINION

International Application No.  
PCT/US03/40340

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

**TIME LIMIT:**

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.